

KOSTIN, Mikhail Kondrat'yevich; ANDREYEV, N.A., otv.red.; ANDREYEV, M.A.,  
red.; ZOLOTOV, P.T., red.; IGHAT'YEV, V.I., red.; VIL'CHENKO, N.D.,  
red.; MIKHAYLOVA, A.M., tekhn.red.

[Russian-Chuvash dictionary of agricultural terms] Russko-chu-  
vashchii slovar' sel'skokhoziastvennykh terminov. Cheboksary,  
Chuvashgospizdat, 1959. 91 p. (MIRA 14:1)

(Agriculture--Dictionaries)  
(Russian language--Dictionaries--Chuvash)

ZOLOTOV, P.V., insh.

Manufacture of 70-m. spans using the stationary method. Transp.  
stroi. 13 no.5:12-16 My '63. (MIRA 16:7)

(Saratov--Bridges--Design and construction)  
(Precast concrete construction)

ZOLOTOV, P. V., Candidate Tech Sci (diss) -- "The static stability of certain suspended systems". Moscow, 1958. 12 pp (Min Higher Educ USSR, Moscow Order of Labor Red Banner Construction Engineering Inst im V. V. Kuybyshev), 150 copies  
(KL, No 22, 1959, 115)

ZOLOTOV, P. Ye.

Effectiveness of aerial dusting with respect to Ixodes persulcatus P. Sch. during the first and second year after its application (1959-1960). Med. paraz. i paraz. bol. no. 2:211-212 '62.  
(MIRA 15:7)

1. Iz Rostovskogo nauchno-issledovatel'skogo instituta meditsinskoy parazitologii Ministerstva zdravookhraneniya RSFSR (dir. - prof. S. N. Pokrovskiy)

(DDT( INSECTICIDE)  
(TALITSA DISTRICT(SVERDLOVSK PROVINCE)--TICKS--  
EXTERMINATION)

ZOLOTOV, R.N.

Possibilities for developing plantations with a predominance  
of the Amur cork tree in Amur Province. Bot. zhur. 47  
no.10:1464-1471 0 '62. (MJRA 15:12)

1. Amurskaya lesnaya optytnaya stantsiya, g. Svobodnyy.  
(Amur Province--Amur cork tree)

ZOLOTOV, S., dotsent.

Calculating stem and fore raising. Mor.flot 16 no.4:24-25 Ap '56.  
(MLBA 9:8)

1. Leningradskiy korablenstroitel'nyy institut.  
(Ships--Maintenance and repair)  
(Load line)

MOROZOV, Vladimir Ivanovich, kand. med. nauk; ZOLOTOV, Seme,  
Nikolayevich; RABINOVICH, M.G., red.

[Take care of your eyes] Bereg te glaza. Moskva,  
Meditina, 1965. 35 p.  
(MIRA 18:12)

ZOLOTOV, S.S., kand. tekhn. nauk

Device for the determination of the amount of air supplied  
through air distributors. Sudostroenie 30 no. 5-24-25 My '64.  
(MIRA 17-6)

ZOLOTOV, S.S.,kand.tekhn.nauk

Calculating flooding or draining of compartments. Sudostroenie 24  
no.4:12-15 Ap '58. (MIRA 11:4)  
(Ships)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410017-5

ZC1070, S.S.

Calculation of the resistance of the air ducts of ship ventilation  
systems. Publication no. 7119-42. Ja. '65.

(MIR 1818)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410017-5"

KARAULOW, Aleksey Nikolayevich; FRIDMAN, Moisey Aleksandrovich; ZOLOTOV,  
S.S., ottv.red.; ALEKSEYEVA, M.N., red.; DVORAKOVSKAYA, A.A.,  
tekhn.red.; KONTOROVICH, A.I., tekhn.red.

[Shipbuilding drawing] Sudostroitel'noe charchenie. Leningrad,  
Gos.sciuznnoe izd-vo sudostroit.promyshl., 1958. 120 p.  
(MIRA 13:4)

(Shipbuilding) (Mechanical drawing)

VOL'FSON, A.B., inzh.; ZOLOTOV, S.S., kand.tekhn.nauk; DOKHON, L.A., inzh.;  
NAZAROV, G.P., inzh.

Study the hydrodynamic characteristics of disk valves. Sudostroyenie 27  
no.3:28-31 Mr '61. (MIRA 14:3)  
(Ships--Hydrodynamics)  
(Valves)

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A005/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 22, p. 481,  
# 124398

AUTHOR: Zolotov, S.S.

TITLE: Comparative Tests of Models in the Wind Tunnel of the Department of  
Hydromechanics

PERIODICAL: Tr. Leningr. korablestroit. in-ta, 1959, No. 28, pp. 27-40

TEXT: Results are presented of the determination of the drag coefficient of the simplest bodies and the distribution of hydrodynamical pressures over their surface. There were tested: round plates oriented at a right angle to the stream, spheres, circular cylinders whose axes were oriented along the stream, and ellipsoids of revolution; the friction coefficient of flat plates was determined. The schematic diagram of the wind tunnel outline is presented with the sizes of the main components, and its characteristic is described. Graphs of the investigation results are given. There are 6 references.

A.L.V.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

ZOLOTOV, S.S., kand. tekhn. nauk.

Experimental investigation of the hydrodynamic characteristics  
of kingston valves. Sudostroenie 24 no.11:24-26 N '58. (MIRA 12:1)  
(Valves--Testing) (Marine engineering)

ZOLOTOV, S.S.

Investigating the protection of ship bridges, superstructures,  
and decks against wind and smoke. Trudy LKI no.38:55-60 '62.  
(MIRA 16:7)

1. Kafedra gidromekhaniki Leningradskogo korablestroitel'nogo  
instituta.

(Ships--Aerodynamics) (Smoke prevention)

28(1)

SOV/3-59-4-29/42

AUTHOR: Zolotov, S.S., Candidate of Technical Sciences, Docent

TITLE: We Improve the Laboratory Basis of Vuzes. The Use of Equipment With an Operating Air Medium

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 4, pp 72-73 (USSR)

ABSTRACT: One of the problems to be solved when reorganizing the higher school system is to raise the scientific-theoretical level of training specialists. In this respect a great part will be assigned to the vuz laboratories, both the problem laboratories, designed for conducting large scientific-research work, and the training laboratories. The latter are furnished with modern equipment and there the students can acquire skill for independent work, and realize in practice what they were taught in theory. Some vuzes intend to establish new laboratories and reorganize the old ones. The author therefore considers it useful to tell of the experience gained by the Lenin-grad Shipbuilding Institute in organizing work at the laboratory for hydromechanics and hydraulics. It was first decided that air must be taken as a working medium in the experimental

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SOV/3-59-4-29/42

We Improve the Laboratory Basis of Vuzes. The Use of Equipment With an Operating Air Medium

equipment. Experience has confirmed that equipment with an air operating medium is in many respects preferable to equipment with a water medium. The author lists and describes in detail the equipment the institute possesses at present, such as a hydraulic air assembly, a device for demonstrating the spectra of a smoky airflow around or along a body, 2 aerodynamic tubes for making experiments, and 2 aerodynamic table tubes with which devices for measuring the velocity and other phenomena can be demonstrated. With this comparatively cheap equipment it is possible to perform about 9 separate laboratory works. In addition to the basic equipment, each training laboratory should possess small devices and appliances for measuring the pressure, velocity and consumption in liquids and gasses, etc. The supply of these articles is completely unsatisfactory.

ASSOCIATION: Leningradskiy korablestroitel'nyy institut (Leningrad Shipbuilding Institute).  
Card 2/2

ZOLOTOV, S.S.

Experimental investigation of the resistance of penetrable solids.  
Trudy LKI no.29:39-47 '59. (MIRA 14:7)

1. Leningradskiy korabestroitel'nyy institut, kafedra gidromekhaniki.  
(Aerodynamics)

ZOLOTOV, S.S., kand.tekhn. nauk.

Calculating air supply distribution in ventilation systems. Sudostro-  
enie 24 no.2:16-21 Y '58.  
(MIRA 11:3)  
(Ships--Heating and ventilation)

ZOLOTOV, S.S.

Refining the design of enclosed working parts of aerodynamic pipes.  
Trudy LKI no.26:37-47 '59. (MIRA 14:9)

1. Kafedra gidromekhaniki Leningradskogo korablenstroitel'nogo  
instituta.  
(Pipe--Aerodynamics)

ZOLOTOV, S.S.

Comparative model tests in the aerodynamic tube of the Department of Hydromechanics. Trudy LKI no.28:27-40 '59. (MIRA 15:5)

1. Kafedra gidromekhaniki Leningraiskogo korablestroitel'nogo instituta.

(Wind tunnels) (Ship models--Testing)

ZOLOTOV, S.S.

Experimental study of the coefficients of discharge and resistance  
of the scupper holes during lateral discharge. Trudy LMI no.31:  
15-19 '60. (MIRA 15:2)

1. Kafedra gidromekhaniki Leningradskogo korablestroitel'nogo  
instituta.  
(Hydraulics)

S/169/62/000/009/097/120  
D228/D507

AUTHORS: Ryzhenko, M. I., Sokolov, O. A., Zolotov, S. V., and Khromov, N. S.

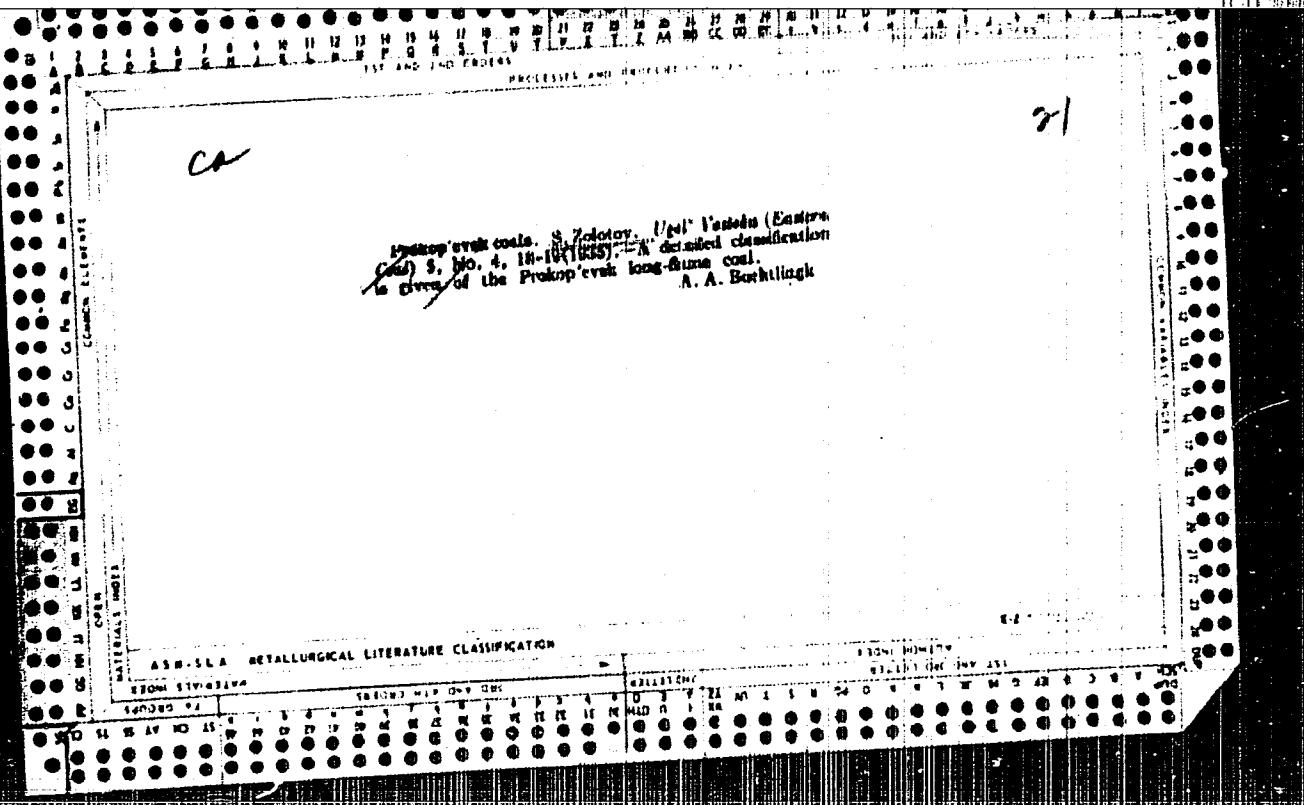
TITLE: 7th scientific-research voyage of the submarine 'Severyanka'

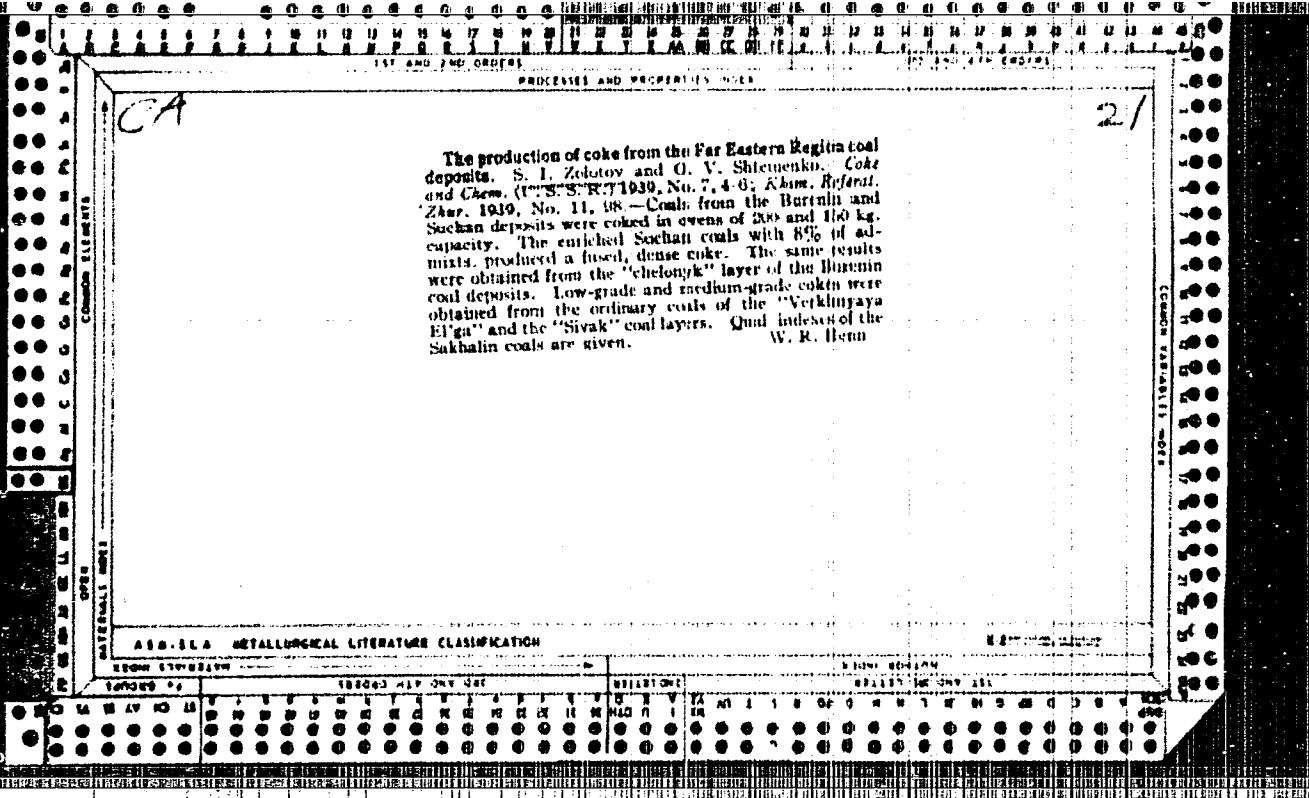
PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 3, abstract 9V19 (Okeanologiya, 1, no. 6, 1961, 1094-1096)

TEXT: The voyage took place on December 1-31, 1960, in the Sea of Norway, principally in herring fishing areas. The Scientific-Research Ship 5 'Professor Mesyatsev' was used for the expedition. The voyage took place under unfavorable conditions, but was, on the whole, fruitful. Ichthyologic observations (on the behavior of herring, when cine-surveying was applied) were carried out, as were observations on the plankton distribution, the performance of a pelagic trawl, and the underwater visibility of colored nets at depths of 7 and 25 m under conditions of twilight illumination.

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Abstracter's note: Complete translation. 7

Card 1/1





ZOLOTOV, T.

Establishing norms for the number of auxiliary workers. Sets.  
trud 6 no. 7 73-78 J1 '61. (MIRA 1617)

(Rostov--Agricultural machinery industry)

ZOLOTOV, V.

On various continents. Sov.profsoiuzy 17 no.12:36-38 Je '61.  
(MIRA 14:6)

(Africa—Trade unions) (Japan—Labor and laboring classes)  
(United States—Strikes and lockouts)

ZHIRONKIN, V.; BESKORSYY, A.; BESPARTOGENYY, A.; brigadir kamenshchikov;  
ZOLOTOV, V.

Large-scale chemistry takes great steps. Sov. profsoiuzy 17  
no. 5:10-11 Mr '61. (MIRA 14:2)

1. Reydovaya brigada zhurnala "Sovetskiye profsoyuza." 2. Nachal'-  
nik shtaba stroyki Lisichanskogo khimicheskogo kombinata (for  
Zhironkin). 3. Proizvoditel' rabot, rukovoditel' kontrol'nogo  
posta na uchastke mochaviny Lisichanskogo khimicheskogo  
kombinata (for Beskorsyy). 4. Predsedatel' komiteta profsoyuza  
2-go stroyupravleniya Lisichanskogo khimicheskogo kombinata (for  
Bespatochnyy). 5. Korrespondent zhurnala "Sovetskiye profsoyuzy"  
(for Zolotov).

(Lisichansk—Construction industry)  
(Socialist competition)

ZOLOTOV, V.

Young specialists must have a thorough safety education. Sov.  
profsoiuzy 6 no.16:56-59 N '58. (MIRA 12:2)  
(Moscow--Safety education, Industrial)

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CIA-RDP86-00513R002065410017-5

MIKHAYLOV, I.; ~~ZOLOTOV, V.~~; VOLODIN, G.

Blood and profit. Sov. profsoiuzy ? no. 7:70-76 J1 '58.(MIRA 11:8)  
(Industrial accidents)

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CIA-RDP86-00513R002065410017-5"

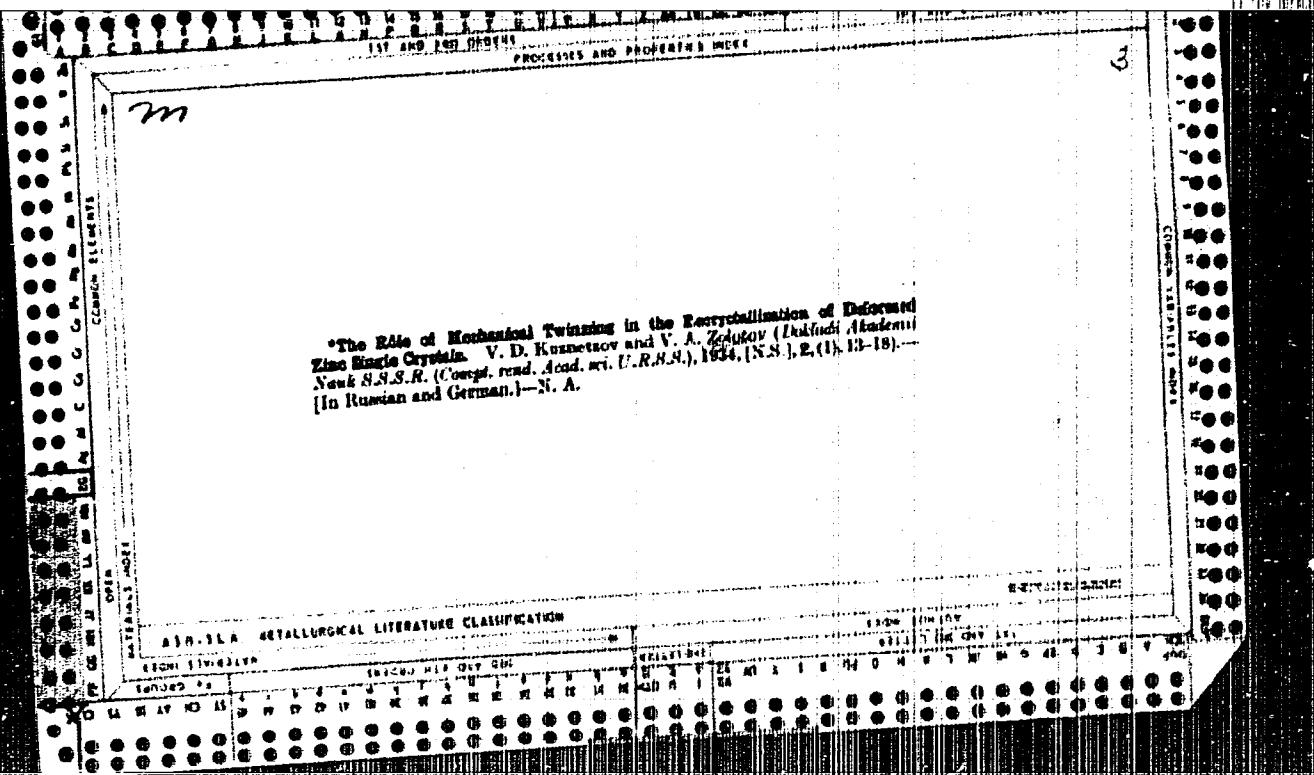
ZOLOTOV, V.

Documents of great importance ("The Communist Party of the Soviet Union on trade unions," 3rd ed. Reviewed by V. Zolotov). Sov. profsoiuzy 5 no.9:75-81 § '57. (MIRA 10:9)

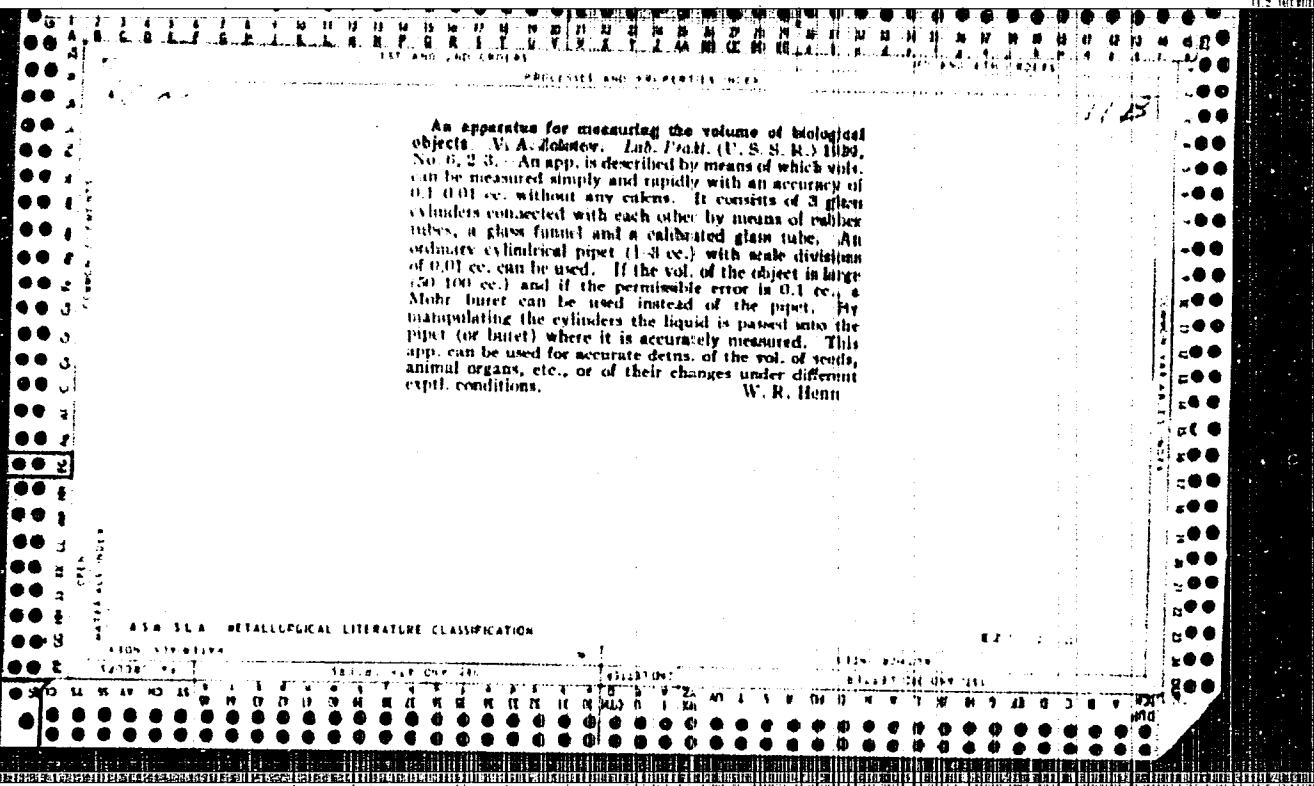
(Trade unions)

ZOLOTOV, V.

Great gathering of working people. Sov.profsoiuzy L no. 3:50-54 N '59.  
(MLBA 6:12)  
(Trade-unions--Congresses)



On the Part Played by Mechanical Twinning in Recrystallization of Deformed Zinc Single Crystals. V. D. Kuznetsov and V. A. Zobkov (Zurnal Eksperimentalnoy i Teoreticheskoy Fiziki (J. Exper. and Theoret. Physics), 1955, 6, (1), 76).—[In Russian.] On annealing at 400°C. zinc single crystals, which have been plastically deformed by bending, by indenting with a pointed tool on the basal plane, or by scratching with the tool, recrystallization takes place only in those cases where mechanical twinning has occurred, the twins becoming the nuclei for the generation of new grains. Simple translation cannot cause recrystallization.—N. A.



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PROPERTIES AND PROBLEMS OF METALS

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**Orientatian of Recrystallization Grains in Zinc Crystals.** V. A. Zobtuk (Compt. rend. (Doklady) Acad. Sci. U.R.S.S., 1943, 50, (6), 180-183). [In English.] Specimens in the form of cylindrical plates 3.3 mm. thick were split off from single-crystal rods of zinc, so that each plate had as a base almost undeformed (0001) planes. Twin formation was encouraged by slight bending, after which recrystallization was initiated by short periods of heating at 300° C. Observation showed that new grains were associated with the twin regions, and differed in orientation from the twin regions only by amounts of the order of 10°. The foci of recrystallization were concentrated near the boundaries between the original crystal lattice and the twin lattice, and it is suggested that in these boundary regions there exist small blocks of slightly disorientated crystal intermixed with deformed and strained material. On recrystallization, these small blocks act as nuclei and grow at the expense of the deformed regions.—G. V. R.

Physics Lab, Argonne Nat'l. Inst

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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ZOLCTOV, V. A.

Sbornik voprosov i zadach po fizike dlia VI i VII klassov [Collection of problems and assignments in physics for the 6th and 7th classes]. Moscow, Uchpedgiz, 1953. 168 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 3, June 1954.

ZOLOTOV, V.A.; RAZUVAYEVA, O.G.

To keep the subscribers satisfied, Vest. sviatyi 25 no.3:19-20 Mr '65.  
(MIRA 18:5)

1. Nachal'nik Gor'kovskoy mezhdugorodnoy telefonnoy stantsii (for  
Zolotov).

ZOLOTOV, V. A.; FURUKINA, L. N.

Microhardness of constructional gypsum. Zav. lab. 28 no.12:  
1495-1496 '62. (MIRA 16:1)

J. Gor'kovskiy inzhenerno-stroitel'nyy institut.

(Gypsum Testing) (Hardness)

D'yachenko, I.I.; Andrukhovich, A.P.; Zolotov, V.A.; Chilikina, N.I.

Complaints, their causes, and measures for preventing them. Vest.  
sviazi 22 no.7:24-25 Jl '62. (MIRA 15:7)

1. Nachal'nik pochtovogo vagona L'vovskogo otdeleniya perevodki  
pochty (for D'yachenko). 2. Starshiy buldgalter Slutskoy kontory  
svyazi Minskoy oblasti (for Andrukhovich). 3. Nachal'nik Gor'kovskoy  
mezhdugorodnoy telefonnoy stantsii (Zolotov).

(Postal service)

ZOLOTOV, V.A. (Gor'kiy)

Solving qualitative problems in the seventh and eighth grades.  
Fiz.v shkole 21 no.3:91 My-Je '61. (MIRA 14:8)  
(Physics—Problems, exercises, etc.)

24(1)

AUTHORS:

Zolotov, V. A., Kurochkin, A. I.

SOV/20-127-5-20/58

TITLE:

The Dehydration of Gypsum in an Ultrasonic Field

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1009-1010  
(USSR)

ABSTRACT:

By the action of ultrasonics (frequency 1 megacycle) sundial-shaped dehydration figures (Fig 1) are observed on the (010)-surface of gypsum crystals. These figures occurred already at a temperature of 80°C, whereas without ultrasonics this recrystallization in  $\beta$ -semihydrate  $\text{CaSO}_4 \cdot 0.5\text{H}_2\text{O}$  occurs only at 120-125°. The starting point for dehydration are small vestiges of plastic deformation (cracks, scratches etc), i.e. apparently defects of the crystal lattice. A formation of  $\alpha$ -semihydrate, on the other hand, did not occur even after the weak ultrasonic field had been allowed to act for several hours. There are 1 figure and 1 Soviet reference.

ASSOCIATION:

Arzamasskiy gosudarstvennyy pedagogicheskiy institut (Arzamas State Pedagogical Institute)

PRESENTED:

April 21, 1959 by P. A. Rebinder, Academician

SUBMITTED:

March 27, 1959

Card 1/1

ZOLOTOV, V.A.

Oriented crystallization of calcium sulfate hemihydrate on the  
faces of gypsum crystals. Kristallografiia 3 no.2:237-240 '58.  
(MIRA 11:6)

1. Arzamasskiy pedagogicheskiy institut.  
(Calcium sulfate)  
(Crystallization)

ZOLOTOV, V.A.

20-3-31/59

AUTHOR Zolotov, V.A.

TITLE Intercrystalline Layers in Gypsum.  
(Mezhkristallitnye proslonye v gipse - Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 115, Nr 3, pp 534-536 (U.S.S.R.)

ABSTRACT The majority of the crystalline substances used in technical engineering form aggregates consisting of single grains (crystallites) which are connected with each other. Numerous investigations showed that the boundaries between the grains play a very important part in a series of processes occurring in polycrystalline materials. The destruction of metals and alloys takes place under certain circumstances along the boundaries of the substances (red brittleness, "Krip"); in other cases (lower temperatures, other stress conditions) the boundaries prove to be, on the contrary, the most solid metal spots. The intercrystallite boundaries change in a certain way the character of the plastic crystal deformation and influence the electric properties of the substances etc. Therefore the study of their structure and properties gains immediate importance. These questions remained unsolved up to now. The following experiments were carried out: 1) 0,03-0,1 mm cuts were made of polydystalline forms of a natural gypsum stone. In the polarization microscope they show dark stripes which prove the existence of special intercrystal layers. 2) After 15 min. a corrosion with HCl 0,01 mm furrows appear on the cut surface which are signs of a greater solubility of the intermediate layers than the solubility of the grains. 3) After half an hour of submerging of the ground surface into methyl violet the grinding

Card 1/2

## Intercrystalline Layers in Gypsum.

20-3451/59

of a thin layer or washing off of the color leads to an intensive deep coloring which forms a characteristic network of intergranular boundaries. 4) The observation of the heated ground surfaces under the microscope shows at 80-100° a cloudiness of the crystallites which, as a rule, begins at their boundaries. This leads to the assumption that the dehydration of the 2-aqueous gypsum begins in the first place at the intercrystalline intermediate layers. 5) The observation of a surface of fracture of the polycrystalline gypsum under the microscope in reflected light shows that the fracture occurs mainly along the surfaces of the most complete soldering [010] which can be easily recognized by their characteristic polish. 6) Pieces of gypsum were reduced by various ways, all splinters were monocrystalline. This gives evidence of a low strength of the intercrystalline layers compared to that of the grains themselves. All these experiments prove the existence of special relatively thin and thicker intercrystalline intermediate layers in natural gypsum. They are assumed to be the places of an incomplete coalescence of the grains with enclosed air. Their specialities doubtlessly in many regards determine the mechanical strength of the natural gypsum under various conditions. (humidity etc.). There are 6 Slavic references.

Arzamas' Pedagogical State Institute.

(Arzamasskiy gosudarstvennyy pedagogicheskiy institut.)

By P.A. Rebinder, Academician, April 29, 1957

October 27, 1956

Library of Congress

Card 2/2

ASSOCIATION

PRESENTED  
SUBMITTED  
AVAILABLE

AUTHOR: Zolotov, V.A.

70-3-2-22/26

TITLE: The Oriented Crystallisation of Calcium Sulphate Hemi-hydrate on the Faces of Crystals of Gypsum (Oriyentirovannaya kristallizatsiya polugidrata sul'fata kal'tsiya na granyakh kristallov gipsa)

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 2, pp 237 - 240  
(USSR).

ABSTRACT: On heating, gypsum ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ) loses water to become the hemihydrate  $\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$ . The original crystal lattice is destroyed and a new one forms. Gypsum from Bornukovsk in the region of Gor'ki was used, cleaved on the O10 plane into plates 0.05-0.1 mm thick. These plates, when heated, began to become opaque or rather translucent at temperatures lower than those quoted in the literature. Four hours' heating at 85°C produced a significant change in the surface which appeared non-directional. Heating at 96-100°C produced patches extended perpendicular to the lines of emergence of the forms 110 and 100 on the O10 face. Rapid heating to 120-125°C produced rectangles, the long sides of which were always parallel to the 100 cleavage cracks. Each rectangle

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70-3-2-22/26  
The Oriented Crystallisation of Calcium Sulphate Hemihydrate on the  
Faces of Crystals of Gypsum

appeared divided by two diagonals into four sectors, two darker and two lighter. In polarised light, the figures are banded and show interference colours different from those of the initial crystal. The interference patterns are different in the former dark and light sectors. The indices were found by immersion to be  $n_g' = 1.558 \pm 0.004$  and  $n_p' = 1.550 \pm 0.004$ . These correspond with published values for the so-called  $\beta$ -hemihydrate. The material thus occurs in a definite orientation on the surface of the gypsum. If the heating is carried out in saturated air, the  $\alpha$ -hemihydrate results. This also occurs in a preferred orientation. There are 5 figures and 4 references, 1 of which is Soviet, 2 German and 1 French.

ASSOCIATION: Arzamasskiy pedagogicheskiy institut  
(Arzamas: Institute of Pedagogy)

SUBMITTED: March 18, 1957  
Card 2/2

ARKHIPOV, Nikolay Nikolayevich; KARPACHEV, Pavel Spiridonovich;  
MAYZEL', Maks Mikhaylovich, doktor tekhn. nauk, prof.;  
PLEVAKO, Nikolay Alekseyevich; ZAYCHIKOVSKII, A.D., doktor  
tekhn. nauk, prof., retsenzent; ZOLOTOV, V.I., inzh., retsen-  
zent; ZYBIN, V.P., doktor tekhn. nauk, retsenzent; KAPUSTIN,  
I.I., doktor tekhn. nauk, prof., retsenzent; KOZLOV, B.A.,  
inzh., retsenzent; POPOV, S.M., doktor tekhn. nauk, prof.,  
retsenzent; EPPEL', S.S., kand. tekhn.nauk, dots., retsen-  
zent; MINAYEVA, T.M., red.; SHVETSOV, S.V., tekhn. red.

[Basic processes, machinery, and apparatus of light industry]  
Osnovnye protsessy, mashiny i aparyty logistiki promyslennosti.  
[By] N.N.Arkhipov i dr. Moscow, Izd-vo inzhino-tekhn. lit-ry  
RSFSR, 1961. 491 p. (MIRA 15:2) (Industry)

ZOLOTOV, V.I.

Packaging large-size tin plate packs. Biul. №IIIGM no.2:  
39-42 '61. (MIRN 14:9)

1. Mezhdunarodstvennaya metricheskaya komissiya.  
(Tin plate) (Packing for shipment)

ZOLOTOV, V. I.

USSR

"Carbon Black Factorier"

Source: *Lugkaya Promyshlennost'* Iss. No. 7  
Moscow

Abstracted in USAF "Treasure Island" Report No.  
10468 on file in Library of Congress, Air  
Information Division.

FILEV, Dmitriy Sidorovich [Fil'ev, D.S.]; ZOLOTOV, Viktor Ivanovich,  
kand. sel'khoz. nauk; ZADONTSOV, A.I., zasl. zasl. Nekotorye  
nauki URSR, akademik, red.; LIVENSKAYA, O.I. [Liven's'ka, O.I.],  
red.; GLUSHKO, G.I. [Glushko, H.I.], tekhn. red.

[Dohliad za posivamy kukurudzy. Dnipropetrov's'k, Dnipropetrov's'ke  
kryzhkove vyd-vo, 1961. 13 p.] (MIRA 15:7)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh  
nauk im. V.I.Lenina (for Filev). 2. Director Vsesoyuznogo  
nauchno-issledovatel'skogo instituta kukurudy i vsego zemledeliya sel'skogo  
khozyaystva sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Zadontsov).  
(Ukraine--Corn (Maize))

ZOLOTOV, V. I.

USSR / Cultivated Plants. Cereals.

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34657

Authors : Artyukhov, I. K.; Zolotov, V. I.; Ryabushko, G. V.  
Inst : Academy of Sciences USSR (kiev)  
Title : Effectiveness of Organic and Mineral Fertilizers in Basic and Cluster Applications to Corn and Sunflowers.

Orig Pub : V. sb.: Mestn. organ. udobreniya USSR, Kiev, AN USSR, 1957, 76-86.

Abstract : No abstract.

Card 1/1

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410017-5

Zolotov, V.I.

BANDA, A.P.; BANDINA, A.I.; ZOLOTOV, V.I.

Manufacture of covered shoe sections made of artificial leather.

Design Bureau of the Ministry of Light Industry (MOLZ) (USSR)

(Shoe Industry) (Leather, Artificial)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R002065410017-5"

ZOLOTOV, V.I., inzh.; IL'INSKIY, D.Ya., inzh.; Pribimeli uchastiye:  
ALEKSANDROV, V.P., inzh.; SOLOV'YEV, S.S., inzh.; BADALINA,  
A.I., kand.tekhn.nauk; FIRSOVA, K.A., kand.tekhn.nauk;  
KOLOSOVA, G.I., mladshiy nauchnyy sotrudnik

Effect of the geometry of the screw on the conditions of the  
extrusion of artificial leather. Nauch.-issl.trudy VNIIPIK  
no.12:87-95 '60.

(Leather, Artificial)

SEMENOVICH, V.G.; MARKUSHKIN, V.G.; ZAYONCHKOVSKIY, A.D.; ZOLOTOV, V.I.;  
BERNSENTEYN, M.Ch.; YABKO, Ya.M.; SMETKIN, Yu.A.

The KhOM-2 machine for the manufacture of continuous disoriented  
fiber bases. Kozh.-obuv.prom. 4 no.11:20-24 N '62.  
(MIRA 15:11)  
(Leather, Artificial) (Nonwoven materials)

FIRSOVA, K.A., kand. tekhn. nauk; BADAMINA, A.I., kand. tekhn. nauk;  
ZOLOTOV, V.I., inzh.; PAVLOV, S.A., doktor tekhn. nauk

Some characteristics of leather fibers used for the  
manufacture of artificial leather. Report No.3: Effect  
of the relative moisture of air on the structure formation  
of artificial leather. Nauch.-issl. trudy VNIPIK no.14;  
10-15 '63. (MIRA 18:12)

KARPACHEV, Pavel Spiridonovich; MAYZEL, Maks Mikhaylovich,  
doktor tekhn.nauk,prof.; PLEVAKO, Nikolay Alekseyevich;  
CHETKIN, Petr Petrovich; ZAYONCHKOVSKIY, A.D., doktor  
tekhn.nauk,prof., retsenzenty; ZOLOTOV, V.I., inzh.,  
retsenzenter

[Machinery and apparatus for the manufacture of artificial leather and film materials] Mashiny i apparaty pro-  
izvodstva iskusstvennoi kozhi i plenochnykh materialov.

[By] P.S. Karpachev i dr. Moskva, Legkaiia industriia,  
1964. 609 p. (MIHA 18:2)

BADANINA, A.I., kand.tekhn.nauk; ZOLOTOV, V.I., inzh.; KOLESOVA, G.I.,  
mladshiy nauchnyy sotrudnik; FIRSOVA, K.A., kand.tekhn.nauk.

Use of worm machines for the formation of artificial leather  
compositions. Report No.1. Nauch.-issel. trudy VNIIPIK no.13:32-  
43 '62. (MIRA 18:1)

25(5)

PHASE I BOOK EXPLOITATION

SOV/1274

Baranov, Boris Aleksandrovich; Zolotov, Vsevolod Nikolayevich  
(Deceased); Khisin, Rafail Iosifovich; Shapiro, Isay Iosifovich;  
Shaskol'skiy, Boris Vladimirovich; Shakhnazarov, Musheg  
Mosesovich

Tekhnicheskoye normirovaniye na mashinostroitel'nom zavode  
(Technical Standards for Machine-building Plants) Moscow,  
Oborongiz, 1958. 576 p. 7,000 copies printed.

Reviewer: Kremenetskiy, N.L., Engineer; Ed. (Title page):  
Shakhnazarova, M.M.; Ed. (Inside book): Tishin, S.D.,  
Candidate of Technical Sciences, Docent; Ed. of Publishing  
House: Rodzevich, S.S.; Tech. Ed.: Rozhin, V.P.; Managing  
Ed.: Sokolov, A.I., Engineer.

PURPOSE: This book is a theoretical and practical manual for  
engineers and technicians engaged in setting technical stand-  
ards in aircraft manufacturing establishments and working  
in scientific research and planning institutes.

Card 1/4

## Technical Standards for Machine (Cont.)

SOV/1274

**COVERAGE:** The book describes the methodology employed in setting technical time standards in machinery-manufacturing and metalworking establishments. It includes basic data on standards for machining, supporting, and assembling operations. Chapters I - VI were written by M.M. Shakhnazarov, Chapter VII by V.N. Zolotov, Chapters VIII and IX by R.I. Khisin, Chapters X, XI, XIII - XVII, and XIX by I.I. Shapiro, Chapter XVIII by B.V. Shaskol'skiy, and Chapters XII and XX - XXVI by B.A. Baranov. There are 24 references, all Soviet.

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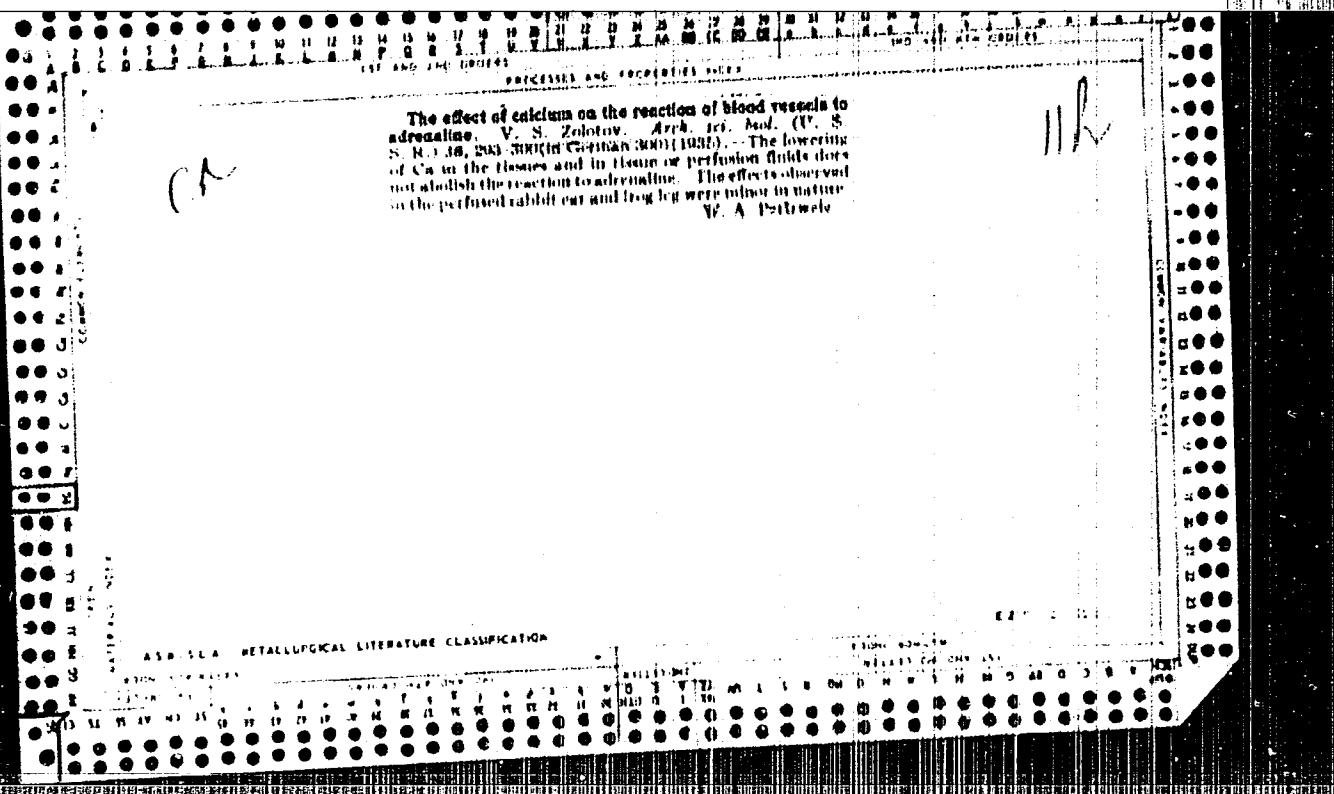
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AVAILABLE: Library of Congress

JG/1sb  
3-23-59

Card 14/14





B.C

R-4

Effect of calcium on reaction of blood vessels  
to adrenalin. V. S. Kozlov. (Arch. Sci. Biol.  
U.S.S.R., 1936, 32, 205-306).—Lowering the Ca  
content of tissues or of tissue or peritoneal fluids does  
not abolish the reaction to adrenalin.

Cat. Ans. (p)

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

FORM 5100-100

EXCERPT

141160 MAY 1964 JSC

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BARANOV, Boris Aleksandrovich,; ZOLOTOV, Vsevolod Nikolayevich,[deceased],;  
KHISIN, Rafail Isafovich,; SHAPIRO, Isay Isayevich,; SHASKOL'SKIY,  
Boris Vladimirovich,; SHAKHNAZAROV, Musheg Moussovich,; KREMEZHITSKIY,  
N.L., inzh., retsenzent,; TISHIN, S.D., kand. tekhn. nauk, dots., red. ;  
RODZEVICH, S.S., izd. red.; ROZHIN, V.P., tekhn. red.

[Production standards for machinery manufacturing factories]  
Tekhnicheskoe normirovanie na mashinostroitel'nom zavode. Moskva,  
Gos. izd-vo obor. promyshl., 1958. 576 p. (MIRA 11:12)  
(Machinery industry--Production standards)

ZOLOTOV, V.N., inzh.; BERDICHENSKIY, B.Ye., inzh.; SHNYKO, V.I., inzh.

Dnepropetrovsk Economic Region at the Exhibition of Progressive Practices in the National Economy of the Ukrainian S.S.R. Mat.  
i gornorud.prom. no.5185 S-0 '62. (NIHA 16:1)  
(Dnepropetrovsk Province—Industries)

ACCESSION NR: AT4012713

S/2981/63/000/002/0058/0063

AUTHOR: Kishnev, P. V.; Matveyev, B. I.; Zolotov, V. S.; Perevynzkin, L. S.

TITLE: Influence of the degree of deformation and the rate and temperature of pressing on the mechanical properties of pressed blanks

SOURCE: Alyuminiyevye splavy\*. Sbornik stately, no. 2. Specheniyevye splavy\*. Moscow, 1963, 58-63

TOPIC TAGS: powder metallurgy, pressed product, deformation, pressing temperature, pressing rate, aluminum powder

ABSTRACT: The flow process for manufacturing pressed powder products may be improved by taking into account the influence of the degree of deformation and rate and temperature of pressing. Proper choice of these parameters improves the quality of the surface and the mechanical properties of the pressed blanks. The present tests were performed under industrial conditions on existing equipment. The results show that increasing the degree of deformation (up to 85%) when pressing rods improves their ultimate strength and relative elongation; the strength does not change for degrees of deformation exceeding 85%. The pressing rate does not affect the mechanical properties of pressed blanks, but it does affect the quality of the surface. Burrs appear at low pressing rates. When the blanks are heated

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53"

ACCESSION NR: AT4012713

to 450-500C the quality of the blanks does not change. Higher temperatures, however, lower the ultimate strength and increase the relative elongation. For the best results, the degree of deformation should be at least 85%, the pressing rate should be above 8 m/min, blanks should be heated to 450-500C, and prior to forming briquettes the aluminum powder should be heated to 500-550C for at least 2-3 hours. "Ye. A. Kurnetsova, A. A. Gel'man and G. M. Baginenko also took part in the work." Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 13 Feb 64

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

Card 2/2

ACCESSION NR: A74012718

S/2381/63/000/002/0090/0097

AUTHOR: Kishnev, P. V.; Gel'man, A. A.; Matveyev, B. I.; Zolotov, V. G.

TITLE: Pipe manufacturing from SAP

SOURCE: Alyuminiyevye splavy\*. Sbornik stately, no. 2. Spechnyye splavy\*.  
Moscow, 1963, 90-97TOPIC TAGS: pipe, pipe manufacture, aluminum pipe, aluminum, sintered aluminum,  
sintered aluminum powder, SAP, rolling mill

ABSTRACT: The process of manufacturing pipes from powdered SAP is described, and the quality and structure of the products are evaluated. Figures on the thickness of extruded, rolled, and drawn pipes are given. Circular and shaped pipes can be made of SAP using common equipment. It is advisable to use (1) vertical and horizontal hydraulic presses at 450-500C with a specific pressure up to 90 kg/mm<sup>2</sup> and a rate of 1 m/sec, (2) cold mills for rolling pressed pipes and (3) chain draw benches for sizing rolled pipes. The best combination of strength and elongation was achieved with pipes made of aluminum powder with a composition of 6.5-7.5% Al<sub>2</sub>O<sub>3</sub>. Repeated pipe pressing decreases the ultimate stress by 2-4 kg/mm<sup>2</sup> and increases the relative elongation by 5%. Pipe block heating can be carried out in

Card 1/2

ACCESSION NR: AT4012718

induction furnaces. "L. S. Perevyazkin, M. D. Levitanskiy, N. D. Marchinsky,  
G. M. Bagmenko, B. Ye. Klemenov, and T. P. Prokudina took part in the work."  
Orig. art. has: 6 figures and 4 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 13Feb64

ENCL: 00

SUB CODE: IE, MA

NO REF. Sov: 000

CHNRD: 000

Card 2/2

ZOLOTOV, V.V.

Formation of an isolated pouch on the anterior gastric wall  
as modified by A.M.Ugolev. Biul.eksp.biol.i med. 54 no.11:122-  
123 N '62. (MIRA 15:12)

1. Iz kafedry anatomi i fiziologii cheloveka i zhivotnykh (zav. -  
prof. V.Ye.Robinson) Ryazanskogo pedagogicheskogo instituta.  
Predstavlena deystvitel'nym chlenom AMN SSSR A.V.Lebedinskym.  
(STOMACH—SURGERY)

1977年 3月12日 中国科学院植物研究所 植物学系

4.  $\text{H}_2\text{O} + \text{CH}_3\text{OH} \rightarrow \text{CH}_3\text{COOH} + \text{H}_2\text{O}$

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<sup>10</sup> See also the discussion of the relationship between the two in the section on "Theoretical Approaches."

Journal of Systematic Botany, Vol. 10, No. 3, pp. 249-265, 1984.

**Topic:** LASERS - Laser stimulated emission, ruby laser, optical rectification, fiber

**ABSTRACT:** Laser action at  $\lambda = 2.36\text{ }\mu$  is reported in  $\text{CaF}_2$  doped with 0.032 mol-%  $\text{Er}^{3+}$  at a temperature of 17K. Pumping was done with a laser population in normal state of an

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CIA-RDP86-00513R002065410017-5"



ZOLOTOV, Ye.M.; FROKHOROV, A.M.; SHIPULO, G.P.

Luminescence and generation of  $\text{CaF}_2:\text{Dy}^{2+}$  crystals when excited by  
a ruby laser. Zhur. eksp. i teor. fiz. 49 no.3:720-723 S '65.  
(MIRA 18:10)

1. Fizicheskiy institut imeni Lebedeva AN SSSR,

Zolotov, Yu,

USSR / Analytical Chemistry. General Problems.

E-1

Abs Jour: Ref. Zhur - Khimiya, No 2, 1958, 4258

Author : Zolotov Yu; Yakovlev Yu.B.

Title : Problems of Analytical Chemistry at the All-Union Scientific-Technical Conference in Regard to the Applications of Radioactive and Stable Isotopes and Radiations in the National Economy and in Science (Moscow, April 4-12. 1957)

Orig Pub: Zh. Analyt. Khimii, 1957, 12, No 4, 570-571

Abstract: No Abstract.

Card 1/1

ZOLOTOV, Yu.A.  
21(1)

## PHASE I BOOK EXPLOITATION

SOV/1762

Lavrakhina, Avgusta Konstantinovna, and Yuriy Aleksandrovich Zolotov  
Transuranovyye elementy (Transuranium Elements) Moscow, Izd-vo  
AN SSSR, 1958. 125 p. (Series: Akademiya nauk SSSR. Nauchno-  
populyarnaya seriya) 10,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Redkollegiyanauchno-  
populyarnoy literatury.

Resp. Ed.: P.N. Paley; Ed. of Publishing House: D.N. Trifonov; Tech.  
Ed.: A.P. Guseva.

PURPOSE: The booklet is intended for the layman interested in nuclear  
physics and also for physics students at the high school level.

COVERAGE: The booklet describes the transuranium elements, mainly  
the two most important ones - plutonium and neptunium, and how they  
were added to the Periodic System. In summarized form the author  
relates the story of their separation and defines their properties,  
including some data on their electronic configuration. Various

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## Transuranium Elements

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methods of isolation are presented; among them is the method on separating the elements from impure solutions, as well as radiochemical and radiometrical methods. Nuclear reactions serving as synthetic sources for the production of transuranium elements are evaluated in general terms. No detailed description of the chemistry of such reactions is given. Chapter 6 outlines the principles of the chain series and suggests possibilities of predicting new elements. There are 41 references of which 33 are Soviet, 5 English, 2 French, and 1 German.

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6-30-59

AUTHOR: Zolotov, Yu. A.

89-4-5-23/26

TITLE: Conference on the Use of Radioactive Isotopes in Analytic Chemistry (Soveshchaniye po primeneniyu radioaktivnykh izotopov v analiticheskoy khimii)

PERIODICAL: Atomnaya Energiya, 1958, Vol 4, Nr 5, pp 49<sup>15</sup>-495 (USSR)

ABSTRACT: In Moscow on December 2-4, 1957, a meeting on the use of radioactive isotopes in analytic chemistry was called by the Department of Chemistry of the Academy of Sciences (USSR) and the Committee on Analytic Chemistry of the Institute of Geochemistry and Analytic Chemistry imeni V. I. Vernadskiy. The meeting was attended by 450 members of various scientific research institutes, institutions of higher learning, and industrial enterprises, including 30 scientists from England, Bulgaria, the Chinese People's Republic, Poland, Rumania, Czechoslovakia, and the United States. The purpose of the meeting was to consider the work of the Soviet Union in 1) the use of radioactive isotopes for the development of new methods of analysis based on radioactivity, 2) developing the theoretical bases of analytic chemistry, 3) improving and testing the methods of separating and differentiating chemical elements, and 4) determining those physico-chemical values which have analytical

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## Conference on the Use (Cont.)

significance. The 50 reports presented at this meeting will be published in a collection under the title "The Application of Radioactive Isotopes in Analytic Chemistry" (Primeneniye radioaktivnykh izotopov v analiticheskoy khimii). Following are the general areas of consideration and summaries of the reports given at the meeting:

## I. Methods of analysis based on radioactivity:

- I. Ye. Zimakov and G. S. Rozhavskiy (Gintsvetmet [State Institute of Nonferrous Metals]) - a new variant of the method for determining minute quantities in mixtures, called the method of "multi-radioactive dilution", which eliminates measurement of the specific activity of preparations - thereby simplifying analysis. I. P. Alimurin and G. H. Bilibovich (GEOKhI [Geochemical Institute of the Academy of Sciences (USSR)]) - a method for separating tantalum from titanium, zirconium, and niobium; and identifying tantalum by isotopic dilution. The precipitation of tantalum was induced by a new organic reagent, [ammonium benzeneselenate] (benzolseleninomokisliy amoniiy). Radiometric titration (two reports; author not given) - a new method of volumetric analysis in which the point of equivalence is determined by measuring the activity of the solution. K. B. Yatsimirskiy and Ye. N. Roslyakova

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Conference on the Use (Cont.)

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(Ivanovo Institute of Chemical Technology) - the use of solutions of complex compounds (luteo salts) of  $\text{Co}^{60}$  for identifying large anions (phosphates, molybdates, and sulfates) by the radiometric titration method. I. M. Korenman and F. R. Sheyanova (Gor'kiy State University) - the possibility of using non-isotopic indicators in radiometric titration and other areas of analytic chemistry. A. I. Nulik (Moscow Institute of Chemical Technology imeni D. I. Mendeleev) - the determination of micro-admixtures ( $10^{-5}$  to  $10^{-6}$  %) of cobalt, copper, tellurium, arsenic, and antimony in ferrous oxides. A. A. Zhukhovitskiy and others (USSR) - development of a new rapid method of analysis based on the reflection (backward scattering) of beta-rays ( $\beta$ -rays). V. B. Gaydadymov (GEOKhI) and L. I. Il'ina (Moscow Electric Light Factory) - determination of the properties of binary tantalum-niobium alloys by the  $\beta$ -ray-reflection method.

- II. Methods of identifying and separating elements: M. M. Senyavin (GEOKhI) - chromatographic analysis using radioactive isotopes; for example, research on separating infinitely small quantities of substances, quantitative analysis by isotopic dilution, etc. E. I. Il'yenko, B. P. Nikol'skiy and A. M. Trofimov (RIAN [Radium Institute of the Academy of Sciences (USSR)]) - the results of research on the adsorption of mercury in ion exchange resins.

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## Conference on the Use (Cont.)

L. V. Borisova (GEOKhI) - data on the distribution of rhodium and molybdenum between [anionite] EHE-10 and solutions of hydrochloric acid. A. K. Lavrukhina, K. Yun-Pin and V. Knoblokh (GEOKhI) - a new complexly-forming substance [trioxyglutaric acid] (triksoiglutarovaya kislota), which is no less effective for identifying purposes than lactic acid used at present. V. I. Kuznetsov and T. G. Akimova (GEOKhI) - separating of uranium from sea-water by the co-precipitation of [thiocyanate] (rodanidnyy) complexes of uranyl with the sedimentation of a large organic cation of rodanide - methyl violet. Some reports were related to the question of co-precipitation in inorganic collectors: [Yu. V. Morechevskiy and A. I. Novikov (Leningrad State University) - "Coprecipitation of several elements of low concentration with metal hydroxides". I. Ye. Starik, F. Ye. Starik, and A. N. Apollonova (RIAN) - "Carbonate method of separating micro-quantities of uranium from weighable amounts of iron". A. K. Lavrukhina (GEOKhI) - examination of peculiarities in the behaviour of insignificant concentrations of radioactive isotopes in solutions, and experimental difficulties caused by the loss of elements adsorbed in filters and glass; the formation of radio-colloids, etc. V. P. Shvedov and L. M. Ivanova (RIAN) - methods of separating the isotopes Mo<sup>96</sup>, I<sup>131</sup>, Cd<sup>113</sup> and Ba<sup>140</sup> from complex mixtures.

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III. Some general problems of analytical chemistry: N. I. Izmaylov and V. S. Chernyy (Khar'kov State University) - research on the influence of the nature of solvents on the solubility of silver chlorides and cesium. The authors related the degree of solubility to the dielectric constant of the solvent. D. M. Ziv and I. A. Efros (RIAN) - a method for determining solubility by the "ultra-micro" method. N. P. Komar (Khar'kov State University) - (in connection with the above method), reported on the use of radiochemical measurements in combination with a determination of the molar coefficient of absorption for the study of complex ions in two-phase systems. I. M. Kol'tsov (Minnesota State University, USA) - new data characterizing the aging and development of crystalline sediments with the aid of radioactive isotopes. A. K. Levrukhina and S. S. Rodin (CHOKhI) - the results of several experiments with the behaviour of element 87 (France) by co-precipitation with various carriers, extraction by solvents, etc. I. M. Irving (Oxford University, England) - study of the analytical properties of indium with the aid of radioactive isotopes. A. A. Grizik and N. I. Marunina (Giredmet [State Rare Metals Scientific Research Institute]) - the use of radioactive isotopes for control of production, for example, production of rare-earth metals.

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1. Conferences--Radioactive Isotopes--Moscow      2. Isotopes (Radioactive)--Applications

AUTHOR: Zolotov, Yu. A. SOV/75-13-4-5/29

TITLE: On the Application of Ultrasonics in Analytical Chemistry  
(Ob ispol'zovanii ul'trazvuka v analiticheskoy khimii)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 4, pp. 403-413 (USSR)

ABSTRACT: Ultrasonics is a great aid in the investigation of properties of different substances and of rules governing different processes (Refs 1-7). The present paper deals with problems of applying ultrasonic methods for solving theoretical and practical problems in analytical chemistry. The following properties of ultrasonics are the most important ones in analytical chemistry:  
1) The dependence of ultrasonic sound velocity in solutions and mixtures on the concentration of the dissolved substance, and in this connection the possibility of quantitative determination of compounds and individual elements.  
2) The ultrasonic depolarizing effect and the acceleration of the electrolytic separation of elements.  
3) The acoustic excitation of gases under the influence of an intermittent beam of heat radiation and the optical and acoustical method for analysing gases based on this, as well as the

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' On the Application of Ultrasonics in Analytical Chemistry

method of investigating absorption spectra in the infrared range.

4) The ultrasonic dispersion, coagulation and mixing of substances, the oxidation in an ultrasonic field, the modification of the rate of dissolution of substances and others.

Among the ways of using ultrasonics in analytical chemistry also the determination of the solvation of ions has to be mentioned, furthermore the use of the magnitude of adiabatic compressibility, which can be computed from acoustic measurements, in physicochemical analysis and the possibility of identifying organic compounds. In the present paper the following subjects are described in detail: the relation between the velocity of sound in solutions and mixtures and the concentration of the dissolved substance (Refs 3-16); the ultrasonic influence on the process of electrolysis; the optical and acoustical effect and its application; the application of the oxidizing, coagulating and other ultrasonic effects (Refs 33-53); ultrasonic methods for the physicochemical investigation of substances which are of importance in analytical chemistry. There are 6 figures and 72 references, 47 of which are Soviet.

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S07/75-13-445/29

On the Application of Ultrasonics in Analytical Chemistry

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry AS USSR imeni V. I. Vernadskiy, Moscow)

SUBMITTED: February 15, 1957

1. Ultrasonics--Applications    2. Chemical analysis

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PAL'SHIN, Ye.S.; ZOLOTOV, Yu.A.

Extraction method of separating neptunium-239 from irradiated uranium.  
Radiochimia 1 no.4:482-487 '59. (MIRA 13:1)  
(Neptunium--Isotopes) (Uranium)

SOV/7B-4-7-42/44

5(2)  
AUTHORS: Zolotov, Yu. A., Novikov, Yu. P.

TITLE: On the Problem of the Ability of Complex Formation of the  
Ion of Quinquevalent Neptunium (K voprosu o kompleksodra-  
zuyushchey sposobnosti iona pyativalenthogo neptuniya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 7,  
pp 1693-1697 (USSR)

ABSTRACT: Quinquevalent neptunium in aqueous solutions forms the ion  $\text{NpO}_2^+$ , which, on account of its size and low charge, shows little inclination to form complexes. The authors give some new data on the complex formation of  $\text{Np(V)}$  with organic substances. Spectroscopic investigations were carried out (Figs 1-4) of complexes with tartaric acid, trioxy-glutaric acid, citric acid, salicylic acid, 2,3-dioxy-terephthalic acid, acetic acid, phthalic acid, and ethylene-diamine-tetraacetic acid. The fact that the reaction with these substances, which contain hydroxyl groups, occurs approximately at pH = 6, and as the hydrolysis of  $\text{NpO}_2^+$  also begins within the same pH-range, is mentioned in confirmation of the said complex compounds. There are

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On the Problem of the Ability of Complex Formation of the Ion of Quinque-valent Neptunium

SOV/78-4-7-42/44

4 figures and 15 references, 6 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo, Akademii nauk SSSR (Institute for Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences, USSR)

SUBMITTED: July 10, 1958

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